

Correspondence

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TO THE EDITOR, *Genitourinary Medicine*

Ampicillin resistant gonorrhoea in Hong Kong

Sir

Resistance of *Neisseria gonorrhoeae* to penicillin is reported widely from centres in South East Asia.¹⁻³ Though bacteriological studies have suggested the presence of β lactamase producing gonococci in Hong Kong,^{4,5} there have been no clinical studies confirming this.

During 1985 we formally evaluated oral ampicillin 3 g plus probenecid 1 g for men with uncomplicated urethral gonorrhoea. All male patients attending the genitourinary medicine clinic at the British Military Hospital, Hong Kong were considered for the study. Inclusion criteria were the presence of intracellular Gram negative diplococci in the urethral discharge confirmed by culture and no recent exposure to antibiotics. Sensitivity to antibiotics was assessed simply, by using monoconcentration antibiotic impregnated discs: penicillin (0.6 μ g), ampicillin (10 μ g), tetracycline (10 μ g), erythromycin (5 μ g), kanamycin (30 μ g), and spectinomycin (10 μ g), were used in every case. Results were interpreted using the Stokes comparative method. Penicillinase production was assessed using Interlactam strips (Mast Laboratories, Bootle, Merseyside, England). Patients were reviewed seven days after treatment, or earlier if symptoms persisted.

Of the 123 men treated with ampicillin, only 61 (50%) were cured. In the 62 patients failing to respond, 43 (69%), were infected by penicillinase producing strains. Interestingly, 50 (41%) of the patients had acquired the infection elsewhere than Hong Kong (mostly in South East Asia), which shows the cosmopolitan nature of sexually transmitted disease in Hong Kong. There was no difference in resistance to ampicillin between local and imported strains (48% v 52% SE diff = 9.17%). Crude assessment of sensitivity to antibiotics showed appreciable resistance to spectinomycin (in 18%), kanamycin (in 22%), and tetracycline (in 21%). In the Territory of Hong Kong, resistance to ampicillin varied geographically. In the cosmopolitan and traditionally "red light" area of Hong Kong Island, 52% of strains were resistant; in the urban but largely

Chinese area of Kowloon, 79% of strains were resistant; whereas in the rural Chinese area of the New Territories only 39% of strains were resistant.

This study confirms the presence of appreciable gonococcal resistance to ampicillin in Hong Kong, but shows interesting differences in prevalence according to geographical area within the Territory. The cosmopolitan nature of gonorrhoea in Hong Kong is confirmed.

Yours faithfully,

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TO THE EDITOR *Genitourinary Medicine*

Specificity and sensitivity of chlamydial direct specimen test: a comparative and quantitative study in patients attending a sexually transmitted disease clinic and a high risk group

Sir,

We recently described a quantitative study of

culture compared with a direct specimen test to diagnose chlamydial infection in Viennese prostitutes, a group at high risk of acquiring sexually transmitted disease (STD).¹ We investigated 700 cervical smears by immunofluorescence microscopy as well as by culture method. Sensitivity (75%) and specificity (99%) of the direct test were evaluated.

In addition to this study we performed a similar one in men and women patients attending an STD outpatient clinic because of genitourinary symptoms. Results were available for 1288 specimens (587 urethral (from 345 men and 242 women) and 701 cervical specimens). Chlamydial diagnosis was performed by culture techniques and the direct test, and the specificity and sensitivity of the direct immunofluorescence test were measured. Inclusion bodies in cell culture and elementary bodies on the smear slide were counted in 838 specimens and evaluated in four categories as follows: category 1 = 0 (negative), category 2 = <10, category 3 = 10-100, category 4 = >100.

The sensitivity of the direct specimen test was higher in urethral (91%) than in cervical (83%) specimens and was highest in urethral specimens from men (93%). Out of 82 men who yielded positive cultures, only six (7%) gave negative results on direct testing. The sensitivity of urethral specimens from women was lower, and calculated as being 86%. Five (14%) out of 36 positive cultures were negative in the direct test. The sensitivity of the direct immunofluorescence test was lowest in cervical specimens (83%) and high in specimens from the cervix (99%) as well as from the urethra (98%). It can be concluded from this study that the sensitivity of the direct specimen test is highest in material from the male urethra. In women, a difference between urethral and cervical smears was found, the sensitivity being higher in urethral specimens.

Both methods were correlated by counting the inclusion and elementary bodies on each slide of 838 specimens. In each category, positive slides showed a similar distribution of inclusion bodies in both the cervix (category 2:43%, category 3:31%, category 4:26%) and the urethra (category 2:40%, category 3:34%, category 4:26%). Concerning the elementary bodies on the slides, smaller numbers were found in cervical and in urethral specimens (category 2